

Rochester Basin/North Tobacco Root Watershed Assessment

Executive Summary and Authorized Officer's Determination



Mill Creek Pond, Waterloo Allotment, June 2008

**Bureau of Land Management
Dillon Field Office
1005 Selway Drive
Dillon, Montana 59725
406-683-8000**

This document summarizes the findings of the Rochester Basin and North Tobacco Roots Watershed Assessment (RNTW) conducted during the 2008 field season. The assessment area covers approximately 32,366 acres of public land administered by the Bureau of Land Management (BLM) in Madison County, Montana. Of the public lands total, 29,601 acres are allotted for grazing and 2,765 acres are unallotted.

The following table summarizes the determination of Rangeland Health Standards by allotment. It also briefly describes resource concerns identified by the interdisciplinary team (IDT) and preliminary recommendations to mitigate these concerns and revise management where deemed necessary.

The BLM is currently working on National Environmental Policy Act (NEPA) documentation, which will include all BLM-administered public lands covered in the RNTW. Alternative management will be analyzed wherever it is determined that allotments are not meeting the Standards, allotments are meeting the Standards but have site specific resource concerns, unhealthy forest and/or fuels conditions are outside the natural range of variability, or we have received an application to modify any of the authorized uses.

The issue of scale must be kept in mind in evaluating each standard. It is recognized that isolated sites within a landscape may be functioning-at-risk (FAR) and not meeting the standards; however, considering broader scope and scale, the area may be in proper functioning condition (PFC); or isolated sites may be PFC, but overall the resource in the allotment or area is FAR and not meeting the standards. No single indicator provides sufficient information to determine land health. They are used in combination to provide the necessary information to make a land health determination. Alternatively, just because a standard is being met, does not mean that the conditions on the ground represent desired resource conditions or objectives.

Table 1. Determination of Rangeland Health Standards, including primary resource concerns and IDT initial recommendations by allotment.

Allotment Name, Number, Category ¹ , & BLM Acres	Are Healthy Rangelands Standards Being Met?					Primary Resource Concerns	Interdisciplinary Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-Diversity		
Allen Individual, 20374, (C), 194 acres	YES	N/A	N/A	YES	YES	1. No resource concerns identified from currently authorized uses. 2. Severe browsing by wildlife.	1. Continue current management. 2. Coordinate with MTFWP to conduct wildlife winter use surveys.
Ballard Custodial, 20379, (C), 95 acres	YES	N/A	N/A	YES	YES	No resource concerns identified.	Continue current management.
Carpenter Individual SGC, 10307, (C), 106 acres	YES	N/A	N/A	YES	YES	No resource concerns identified.	Continue current management.

Allotment Name, Number, Category ¹ , & BLM Acres	Are Healthy Rangelands Standards Being Met?					Primary Resource Concerns	Interdisciplinary Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-Diversity		
Dry Boulder, 30236, (C), 2,044 acres	YES	YES	*	YES	YES	No resource concerns identified.	Continue current management.
Hells Canyon, 20325, (M), 1,242 acres	YES	YES	*	YES	YES	No resource concerns identified.	Continue current management.
Iron Rod, 20268, (M), 5,675 acres	YES	NO	NO ²	YES	NO	1. Historic mining impacts, road crossings, and livestock trailing in riparian areas (1002, 1023, 1025). 2. Infestations of leafy spurge and spotted knapweed.	1. Consider closing road along 1025 and revise grazing to improve livestock distribution. 2. Improve distribution and increase population of biological controls; continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies.
Jackson Isolated, 20408, (C), 935 acres	YES	N/A	N/A	YES	YES	1. No resource concerns identified from currently authorized uses. 2. A large infestation of cheatgrass at the south end of the allotment.	1. Continue current management. 2. Consider aerial application of herbicide or small experimental plots.

Allotment Name, Number, Category ¹ , & BLM Acres	Are Healthy Rangelands Standards Being Met?					Primary Resource Concerns	Interdisciplinary Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-Diversity		
Kountz, 10443, (I), 1,329 acres	YES	NO	*	YES	NO	1. Juniper encroachment into sagebrush/grassland habitats and riparian areas. 2. Overwidening and increased sediment from livestock trailing, roads, and mine tailings. 3. Infestations of cheatgrass, houndstongue, whitetop, leafy spurge, and spotted knapweed.	1. Mechanical treatments and/or prescribed fire to reduce juniper encroachment. 2. Improve livestock distribution and use felled juniper to limit access to riparian areas. 3. Improve distribution and increase population of biological controls; continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies.
Landmark, 20312, (C), 318 acres	YES	N/A	N/A	YES	YES	1. No resource concerns identified from currently authorized uses. 2. Infestations of cheatgrass, houndstongue, and spotted knapweed.	1. Continue current management. 2. Continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies.
Lower Rochester, 10353, (M), 930 acres	NO	NO	NO ²	YES	NO	1. Streambank trampling, overwidening, diverted flows. 2. Infestations of cheatgrass, houndstongue Russian knapweed, and spotted knapweed.	1. Revise livestock management to reduce duration and/or frequency of use. 2. Continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies.

Allotment Name, Number, Category ¹ , & BLM Acres	Are Healthy Rangelands Standards Being Met?					Primary Resource Concerns	Interdisciplinary Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-Diversity		
Mahogany Isolated, 20419, (C), 286 acres	YES	NO	NO ²	YES	NO	1. No resource concerns identified from currently authorized uses. 2. Extensive infestations of cheatgrass, spotted knapweed, leafy spurge, common mullen and houndstongue along the railroad grade and river.	1. Continue current management. 2. Introduce biological controls; continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies.
Nelson SGC, 20313, (I), 511 acres	YES	YES	*	YES	YES	1. No resource concerns identified from currently authorized uses. 2. Defoliation of Douglas-fir encroachment by spruce budworm.	1. Continue current management. 2. No treatment recommended at this time; continue monitoring.
Rochester Basin AMP, 20324, (I), 12,352 acres	YES	NO	NO ²	YES	YES	1. Overwidening, hummocking, and altered vegetative composition in some riparian areas. 2. Infestations of cheatgrass, leafy spurge, spotted knapweed, Russian knapweed, and houndstongue.	1. Shorten duration of grazing, improve livestock distribution, and redevelop dysfunctional off-site water developments. 2. Continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies.
Sacry, 20430, (C), 128 acres	YES	N/A	N/A	YES	YES	1. No resource concerns identified from currently authorized uses. 2. Infestations of cheatgrass and houndstongue.	1. Continue current management. 2. Continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies.

Allotment Name, Number, Category ¹ , & BLM Acres	Are Healthy Rangelands Standards Being Met?					Primary Resource Concerns	Interdisciplinary Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-Diversity		
Sand Creek, 30409, (C), 63 acres	YES	N/A	N/A	YES	YES	1. No resource concerns identified from currently authorized uses. 2. Infestations of cheatgrass and houndstongue. 3. Several small, highly-fragmented parcels.	1. Continue current management. 2. Continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies. 3. Consider disposal.
Shakey Springs, 20349, (C), 419 acres	YES	YES	*	YES	YES	No resource concerns identified.	Continue current management.
Shaw Basin, 20433, (C), 342 acres	YES	N/A	N/A	YES	YES	No resource concerns identified.	Continue current management.
Sparrow Ditch AMP, 20377, (M), 268 acres	YES	N/A	N/A	YES	YES	No resource concerns identified.	Continue current management.
Third Creek, 30237, (C), 847 acres	YES	YES	*	YES	YES	1. No resource concerns identified from currently authorized uses. 2. Juniper encroachment into riparian areas (1009, 1021, 1038).	1. Continue current management. 2. No treatment recommended at this time; continue monitoring.
Upper Rochester, 30661, (M), 1,120 acres	YES	YES	*	YES	YES	1. No resource concerns identified from currently authorized uses. 2. Defoliation of Douglas-fir encroachment by spruce budworm.	1. Continue current management. 2. No treatment recommended at this time; continue monitoring.
Vern Shaw, 20432, (C), 235 acres	YES	N/A	N/A	YES	YES	1. No resource concerns identified. 2. Spotted knapweed on adjacent deeded property.	1. Continue current management. 2. Continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies.

Allotment Name, Number, Category ¹ , & BLM Acres	Are Healthy Rangelands Standards Being Met?					Primary Resource Concerns	Interdisciplinary Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-Diversity		
Waterloo, 20361, (C), 162 acres	NO	YES	*	YES	NO	1. No resource concerns identified from currently authorized uses. 2. Extensive infestations of cheatgrass, spotted knapweed, and leafy spurge.	1. Continue current management. 2. Introduce biological controls; continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies.
UNALLOTTED London Hills, 676 acres	YES	NO	NO ²	YES	NO	1. No resource concerns identified from currently authorized uses. 2. Extensive infestations of spotted knapweed, leafy spurge, common mullen and houndstongue along the railroad grade and river.	1. Continue to manage as unavailable for livestock grazing. 2. Introduce biological controls; continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies.
UNALLOTTED Point of Rocks, 45 acres	YES	NO	NO ²	YES	NO	1. No resource concerns identified from currently authorized uses. 2. Infestations of leafy spurge along Parrot Ditch.	1. Continue to manage as unavailable for livestock grazing. 2. Continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies.
UNALLOTTED High Mountain, 481 acres	YES	N/A	N/A	YES	YES	No resource concerns identified.	Continue to manage as unavailable for livestock grazing.

Allotment Name, Number, Category ¹ , & BLM Acres	Are Healthy Rangelands Standards Being Met?					Primary Resource Concerns	Interdisciplinary Team Initial Recommendations
	Upland	Riparian Wetland	Water Quality	Air Quality	Bio-Diversity		
UNALLOTTED Dry Gulch, 1,563 acres	YES	N/A	N/A	YES	YES	1. No resource concerns identified from currently authorized uses. 2. Infestations of spotted knapweed along the road.	1. Continue to manage as unavailable for livestock grazing. 2. Continue treating and coordinating weed treatments with private land owners, counties, and state and federal agencies.
¹ Allotment Category: I = improve, M = maintain, C = custodial ² The Montana Department of Environmental Quality (DEQ) has the responsibility for making water quality determinations and has completed its evaluation of 303(d)-listed streams. * Tributary streams in the RNTW are not on the 303(d) list, are not priority streams, and are not scheduled to be evaluated by the DEQ.							

Allotment category refers to BLM's level of management for a given grazing allotment, based on resource values and opportunities for improvement. Allotments in the I-category are managed more intensively and are monitored more frequently. Allotments in the M-category are usually at a desired condition and are managed to maintain or improve that condition. Allotments in the C-category are usually isolated parcels with few resource concerns that are fenced in with larger parcels of deeded land, are managed in conjunction with the permittee/lessee's normal livestock operation, and are monitored less frequently.

Standard # 1: Upland Health

The Lower Rochester and Waterloo Allotments are **not** meeting this standard.

The Lower Rochester Allotment has high shrub mortality and reduced production, vigor, and reproductive potential for perennial grasses, which have resulted in excessive bare ground and a severe infestation of cheatgrass. The Waterloo Allotment is severely infested with cheatgrass, leafy spurge and spotted knapweed, which are affecting soil stability, hydrologic functioning, and biotic integrity.

Current livestock management has been determined to be one of the contributing factors in not meeting the upland standard on the Lower Rochester Allotment.

Standard # 2: Riparian Health

Five allotments and two unallotted parcels are **not** meeting this standard:

- | | |
|----------------------|--------------------------------|
| 1. Iron Rod | 5. Rochester Basin AMP |
| 2. Kountz | 6. Unallotted – London Hills |
| 3. Lower Rochester | 7. Unallotted – Point of Rocks |
| 4. Mahogany Isolated | |

The riparian areas that did not meet the standards were determined to be FAR, with either a static or downward trend, or non-functional. Riparian habitat that is FAR with an upward trend is considered to be meeting the riparian health standard because it is making progress toward achieving PFC.

On the Kountz, Lower Rochester, and Rochester Basin AMP Allotments, the riparian areas that did not meet the standard had altered vegetative composition along the riparian zone and/or reduced bank stability due to impacts from livestock trailing and/or grazing. On the Iron Rod, Kountz, and Mahogany Isolated Allotments, and the unallotted London Hills and Point of Rocks parcels, the riparian areas that did not meet the riparian standard had extensive noxious weed infestations that include leafy spurge, spotted knapweed, and/or houndstongue. These infestations had impaired the stability of the streambanks. Additionally, on the Iron Rod Allotment, two-track road intersects reach 1025 several times and follows the stream bed in several locations.

Current livestock management has been determined to be one of the contributing factors in not meeting the riparian standard on the Kountz, Lower Rochester, and Rochester Basin AMP Allotments.

Standard # 3: Water Quality

Four allotments and two unallotted parcels are **not** meeting this standard:

- | | |
|----------------------|--------------------------------|
| 1. Iron Rod | 4. Rochester Basin AMP |
| 2. Lower Rochester | 5. Unallotted – London Hills |
| 3. Mahogany Isolated | 6. Unallotted – Point of Rocks |

The Montana Department of Environmental Quality (DEQ) has been given the responsibility for making water quality determinations and has completed its evaluation of 303(d)-listed streams. The Jefferson River, Big Hole River, Rochester Creek, and Hells Canyon Creek are on the 303(d) list and have been found to be impaired. Tributary streams in the RNTW are not on the 303(d) list, are not priority streams, and are not scheduled to be evaluated by the DEQ.

Current livestock management has been determined to be one of the contributing factors in not meeting the water quality standard on the Lower Rochester, and Rochester Basin AMP Allotments.

Standard # 4: Air Quality

All the allotments assessed within the watershed are meeting this standard.

Standard # 5: Biodiversity

Five allotments and two unallotted parcels are **not** meeting this standard:

- | | |
|----------------------|--------------------------------|
| 1. Iron Rod | 5. Waterloo |
| 2. Kountz | 6. Unallotted – London Hills |
| 3. Lower Rochester | 7. Unallotted – Point of Rocks |
| 4. Mahogany Isolated | |

Biodiversity is closely related to upland and riparian health. On each of these allotments and unallotted parcels, severe infestations of noxious weeds are the primary reason for failing to meet this standard. The noxious weeds have affected soils stability, hydrologic function, and biotic integrity, which have degraded habitat for native plants and wildlife.

Current livestock management has been determined to be one of the contributing factors in not meeting the biodiversity standard on the Kountz and Lower Rochester Allotments.

NEPA Documentation

Before any of the above stated recommendations can be implemented, NEPA documentation will be completed to analyze a reasonable range of alternatives to address resource concerns found during the Assessment. The Dillon Field Office will be working on the Rochester Basin/North Tobacco Root Environmental Assessment (DOI-BLM-MT-050-2009-0003-EA) during the spring of 2009.

Implementation of new plans will begin in 2009, but due to budgetary and human resource constraints, complete implementation of these plans may take several years.

For more information, please review the Rochester Basin/North Tobacco Root Watershed Assessment Report or contact the Dillon Field Office (406) 683-8000.

Authorized Officer's Determination

Based on my review of the Assessment Team's recommendations, and other relevant data and information, I have determined that the following 16 allotments and two unallotted parcels within the Rochester Basin/North Tobacco Root Watershed **meet** all five of the Standards for Rangeland (Land) Health and Guidelines for Grazing Management for BLM lands in Montana:

- | | | |
|-----------------------------|-----------------------|--------------------------------|
| 1. Allen Individual | 7. Landmark | 14. Third Creek |
| 2. Ballard Custodial | 8. Nelson SGC | 15. Upper Rochester |
| 3. Carpenter Individual SGC | 9. Sacry | 16. Vern Shaw |
| 4. Dry Boulder | 10. Sand Creek | 17. Unallotted – High Mountain |
| 5. Hells Canyon | 11. Shakey Springs | 18. Unallotted – Dry Gulch |
| 6. Jackson Isolated | 12. Shaw Basin | |
| | 13. Sparrow Ditch AMP | |

I have determined that the following 6 allotments and two unallotted parcels **do not** meet the Standards for Rangeland Health and Guidelines for Grazing Management for BLM lands in Montana:

- | | | |
|----------------------|------------------------|--------------------------------|
| 1. Iron Rod | 5. Rochester Basin AMP | 7. Unallotted – London Hills |
| 2. Kountz | | 8. Unallotted – Point of Rocks |
| 3. Lower Rochester | 6. Waterloo | |
| 4. Mahogany Isolated | | |

I have determined that current livestock management is a significant causal factor in the land health standards **not being met** on the Iron Rod, Kountz, Lower Rochester, and Rochester Basin AMP Allotments.

Pursuant to 43 CFR 4180.2(c), the Authorized Officer shall take appropriate action as soon as practicable but not later than the start of the next grazing year upon determining that existing grazing management practices or levels of grazing use on public lands are significant factors in failing to achieve the standards. Appropriate action means implementing actions that will result in significant progress toward fulfillment of the standards. Practices and activities subject to standards and guidelines include the development, modification, or revision of AMPs, establishment of terms and conditions of permits, leases and other grazing authorizations, and range improvement activities such as vegetation manipulation, fence construction and development of water.

BLM Manual Handbook H-4180-1, Rangeland Health Standards Handbook, provides guidance for conducting watershed-based Land Health Assessments. It states "If the Land Health Standards are not being achieved because of a causal factor other than current livestock grazing management, you must consult other program guidance for the appropriate steps to be taken to ensure that progress toward meeting Standards is made."

Dillon Field Manager

Date